REMARKS

Claims 11, 12 and 15-38 are pending in the subject application. Applicants have hereinabove amended claims 11 and 12 without disclaimer or prejudice to applicants' right to pursue the subject matter of these claims in the future. Support for amendment to the claims may be found in the specification, *inter alia*, at page 3, lines 4-21 and page 6, lines 19-27. Applicants maintain that no issue of new matter is raised by this amendment. Upon entry of the Amendment, claims 11 and 12, as amended, and claims 15-38 will be pending and under examination in the subject application.

Rejection under 35 U.S.C. §112, First Paragraph

The Examiner rejected claims 11, 12 and 15-38 under 35 U.S.C. §112, First Paragraph, as failing to comply with the enablement requirement. The Examiner stated that the claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The Examiner stated that the claims were broadly drawn to methods of treating cancer. The Examiner admits that the specification teaches a variety of basic experimental analysis to illustrate the treatment of cancer in vitro of breast cancer cells, prostrate cancer cells, ovarian cancer cells, etc. and further includes the *in-vitro* induction of phosphorylation of Bcl-2. However, the Examiner states that with regards to decreasing cell vitality in a dose-dependent manner, the specification only teaches in vitro experimental analysis demonstrating the decrease in cell vitality and provides no extrapolation of data to support in vivo decrease of cell vitality with respect to cancer cells of the breast, prostrate, ovarian, etc.

The Examiner also stated that Applicants' arguments filed November 3, 2008 were not persuasive. Specifically, the Examiner stated that Mora et al., which states that "it is important to note, however, that rapid processing (less than 15 minutes from surgical removal) is essential for preserving the in vivo phosphorylation state of the protein and

hence for obtaining reliable data for cancer cells", shows that there is unpredictability in the art for the correlation of an in vitro assay with in vivo, because the data obtained in vitro is not always reliable, especially with protein phosphorylation as required by the instant claims. The Examiner also stated that the model does not correlate and that there can not be a reasonable correlation between the disclosed in vitro utility and an in vivo activity for cancer cells.

In response, applicants respectfully traverse the Examiner's rejection. Applicants note that the cited portion of Mora et al. does not state that "rapid processing . . . is essential for preserving the in vivo phsophorylation state of the protein and hence for obtaining reliable data for cancer cells" as the Examiner contends, but rather states that "[i]t is important to note, however, that rapid processing (less than 15 min from surgical removal) is essential for preserving the *in vivo* phosphorylation state of Stat3 protein and, thus, for obtaining reliable data on Stat3 activation in tumor specimens" (emphasis added). As can be seen from the proper quotation of Mora, et al., the cited passage does not indicate that the activation state of STAT proteins in the model cell lines used by applicants is lost over time. Rather Mora et al. states that cells excised directly from tumors in human patients needed to be processed within 15 minutes to preserve the activation state of STAT proteins in these cells. *See* Mora et al., p. 6660, left column, lines 3-8. The fact that cells removed directly from a human patient lose in vivo activity after a certain amount of time does *not* indicate or suggest that the *model cell lines* used by applicants do not maintain their phosphorylation state over time. Additionally, Mora et al. does not state or suggest that data obtained in vitro is not reliable, nor does it state that the model cell lines do not correlate to in vivo activity. In fact, the data presented in Mora et al. indicate that the STAT protein activity in the model cell lines used by applicants do correlate to the activity of cells excised directly from tumors in human patients. *See* Mora, et al. at p. 6660, right column, line 62 to p. 6661, left column line 17; p. 6661, right column line 10 to p. 6662, left column, line 20; and p. 6662, right column, lines 6-

12. Accordingly, one of skill in the art would expect correlation between the successful in vitro treatment of cancer as observed in the specification and treatment of the specific corresponding cancer, absent evidence to the contrary.

Additionally, as stated in Applicants' November 3, 2008 Response, the other tested cell models in the specification are for breast and ovarian cancers (e.g. MCF-7 and PA-1 cells) (see, *inter alia*, page 3, lines 7-10 and 14; page 5, lines 16-22) which are all standard models for their corresponding cancers. *See* Vickers, et al., 1988; Pink, et al., 1996; Ma, et al., 1988; and Obermiller, et al., 1999, attached to Applicants' November 3, 2008 Response as Exhibits 1-2 and 4-6, respectively.

Furthermore, one of skill in the art of clinical studies would well be able to determine dosage ranges for any animal, for any route of administration, by treating test animals and biopsying their tumor cells and measuring the level of Bcl-2 phosphorylation in those tumor cells as described at page 6, lines 6-18 of the specification, for the methods as now claimed. Moreover, such a dose-finding study is routine in the clinical studies arts and is not undue experimentation. Accordingly, one of skill in the art would be able to make and/or use the invention without undue experimentation.

Applicants submit that, in view of the preceding remarks, claims 11 and 12 meet the requirements of 35 U.S.C. §112, First Paragraph, and are enabled for the reasons stated hereinabove. Claims 15-38 depend from either claim 11 or 12 and are submitted to be enabled for the same reasons. Applicants therefore respectfully request that the Examiner reconsider and withdraw the rejection of claims under 35 U.S.C. §112, First Paragraph.

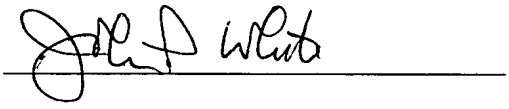
Summary

In view of the remarks hereinabove, applicants respectfully submit that the grounds of rejection set forth in the February 3, 2009 Final Office Action have been overcome. Applicants therefore respectfully request that the Examiner reconsider and withdraw these grounds of rejection and indicate that the claims are allowable.

If a telephone interview would be of assistance in advancing prosecution of the subject application, applicant's undersigned attorney invites the Examiner to telephone him at the number provided below.

No fees, other than the enclosed $245.00 two-month extension fee, is deemed necessary in connection with the filing of this Communication. Accordingly, a check in the amount of $245.00 is enclosed. However, if any additional fee is required, authorization is hereby given to charge the amount of such fee to Deposit Account No. 03-3125.

Respectfully submitted,



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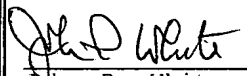

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